

**Petrogulf Corporation- Sandstrom/Three Tribes Well Pad
Partial Compliance Evaluation (PCE)
On-Site Clean Air Act (CAA) Inspections**

Inspection Date: April 1, 2015

Inspection Report Date: June 11, 2015 FINAL

EPA Representatives: Alexis North
Scott Patefield

Tribal Representatives: None

Company Representatives: None

Inspection Report Prepared By: Alexis North & Scott Patefield

Inspection Report Reviewed By: Cynthia Reynolds

Applicable Rules: Fort Berthold Indian Reservation (Mandan, Hidatsa and Arikara Nation), North Dakota (Fort Berthold FIP)

Overall Inspections' Findings

The EPA detected natural gas emissions using an infrared (IR) camera at the following well pad from oil/water storage tanks in violation of 40 C.F.R. § [49.4165\(b\)\(1\), \(2\) & \(3\)](#):

- SANDSTROM 151-94-1H, SANDSTROM 151-94-2HTF, THREE TRIBES 151-94-3H, THREE TRIBES 151-94-4HTF (MOV_2789.mp4)

General Source Information

Inspectors scanned the following Petrogulf Corporation (Petrogulf) well sites' crude and/or water storage tanks and flares from the well site's entrance and/or adjacent road for any detectable emissions using an IR camera. Specifically, inspectors scanned storage tanks for natural gas emissions per 40 C.F.R. § 49.4165(b)(1), (2) & (3) and utility flares per 40 C.F.R. § 49.4165(c).

The EPA evaluated the Sandstrom 151-94-1H, Sandstrom 151-94-2HTF, Three Tribes 151-94-3H, Three Tribes 151-94-4HTF well pad on the Fort Berthold Indian Reservation using an IR camera on April 1, 2015. The well information located in the tables below is from the North Dakota Industrial Commission (NDIC) well index located online at <https://www.dmr.nd.gov/oilgas/>.

Table 1: Facility Inspected April 1, 2015

In/Out	# Tanks	IR emissions tanks?	Video ID	IR emissions flare?	NDIC #	CurrentWellName
11:26	22	Yes	MOV_2789.mp4	No	25948	SANDSTROM 151-94-1H
11:35					25949	SANDSTROM 151-94-2HTF
					28522	THREE TRIBES 151-94-3H
					28523	THREE TRIBES 151-94-4HTF

Fort Berthold FIP Applicability

Based on drilling information reported to the NDIC well index by Petrogulf, the facility listed in Table 1 was completed after the August 12, 2007 applicability date (per 40 C.F.R. § 49.4161) and is producing from the Bakken Pool (per 40 C.F.R. § 49.4163(a)(1)) and is thus subject to the Fort Berthold FIP.

Closed Vent System Equipment Requirements [§49.4165(b)]

Per 49.4165(b)(1), “Each closed-vent system must route all produced natural gas and natural gas emissions from production and storage operations to the natural gas sales pipeline or the control devices...”. The EPA, using an IR camera, noted and recorded natural gas emissions from production and storage tanks at the single well pad evaluated. Attachment A includes an IR log and video details.

APPENDIX A: IR & PHOTO LOGS

IR LOG

COMPANY/ OPERATOR	SITE	FILE DATE	ACTUAL DATE	FRAME #	FORMA T	PHOTO GRAPHE R	DISTANC E (yds) Camera to Leak	DESCRIPTIO N
PETROGULF CORPORATION	SANDSTROM 151- 94-1H	4/1/201 5	4/1/2015	MOV_278 9	mp4	Spatefield	80	Tank video

PHOTO LOG

File		Date	Time	Photographer	Comments
RIMG	0048	4/1/2015	11:25	A.North	Petrogulf signage
RIMG	0049	4/1/2015	11:27	A.North	Petrogulf site
RIMG	0050	4/1/2015	11:27	A.North	Petrogulf site
RIMG	0051	4/1/2015	11:31	A.North	Petrogulf site
RIMG	0052	4/1/2015	11:31	A.North	Petrogulf site